



CHEVRON PHOSPHATE PROJECT

DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

DEPARTMENT OF AGRICULTURE
FOREST SERVICE

RECORD OF DECISION

SEPTEMBER
1983



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1983b
Suppl.



United States Department of the Interior

BUREAU OF LAND MANAGEMENT

Rock Springs District

P. O. Box 1869

Rock Springs, Wyoming 82902-1869

1794 (420)

Dear Reader:

Enclosed is the public record of decision for the Chevron Phosphate Project. It is provided for your information and use.

This document, in compliance with the National Environmental Policy Act, outlines the decisions and rationale (management considerations) to the analysis presented in the Chevron Phosphate Project Environmental Impact Statement (EIS).

Key management considerations, required environmental impact mitigation measures, and compliance and monitoring requirements are described.

A comment period is not required by regulation for decision documents. However, any comments you may have would certainly be welcomed and given consideration. Comments should be directed to Donald H. Sweep, District Manager, Bureau of Land Management, District Office, P. O. Box 1869, Rock Springs, Wyoming 82902-1869.

Maynard T. Riemann

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RECORD OF DECISION
FOR
CHEVRON PHOSPHATE PROJECT

Rights-of-Way

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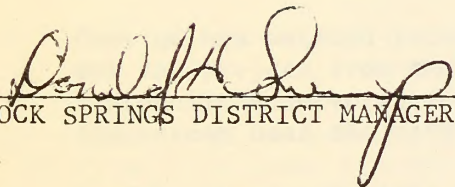
Prepared By
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Bureau of Land Management
Rock Springs and Vernal Districts

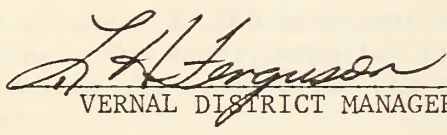
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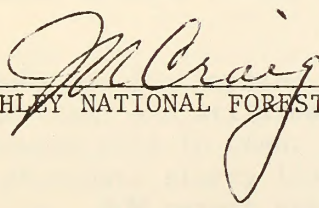
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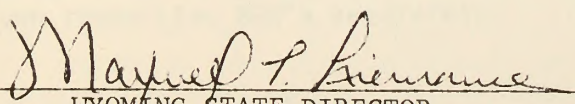
RECOMMENDATION:


ROCK SPRINGS DISTRICT MANAGER


VERNAL DISTRICT MANAGER


ASHLEY NATIONAL FOREST SUPERVISOR

DECISION:


WYOMING STATE DIRECTOR

RECORD OF DECISION

A. INTRODUCTION

Chevron Chemical Company (Chevron) has applied to the Bureau of Land Management (BLM), Wyoming and Utah State Offices, for right-of-way permits, and to the State of Wyoming, Office of Industrial Siting Administration (ISA) for an Industrial Siting Council permit to construct and operate a phosphate fertilizer plant and associated ancillary facilities. On January 13, 1983, Chevron was given tentative approval by the Industrial Siting Council to construct and operate its fertilizer plant near Rock Springs, Wyoming. The Industrial Siting Permit, WISC-82-2, was granted by the Industrial Siting Council on January 24, 1983, and included permit conditions to mitigate environmental and socioeconomic impacts (see Appendix 1 for the Office of Industrial Siting Administration Permit Conditions to Mitigate Environmental Socioeconomic Impacts).

The fertilizer plant complex would be located approximately four miles southeast of Rock Springs, Wyoming. The plant would initially produce an estimated 1,200 tons per day of liquid and pelletized phosphate fertilizer.

The proposed fertilizer plant complex would use sulfur recovered from Chevron USA's natural gas plant located at Carter Creek, Wyoming. Molten sulfur would be shipped to the fertilizer plant by rail from an existing sulfur load-out facility near Kemmerer, Wyoming. Transportation of the sulfur would require construction of a 8.7-mile long rail spur from the main Union Pacific line at Rock Springs to the plant site.

Phosphate rock for the proposed fertilizer plant would be supplied by an existing mine and beneficiation plant owned by Chevron Resources Company north of Vernal, Utah. The phosphate rock would be slurried to the plant through a proposed 96.3-mile long, 11-inch diameter buried pipeline that would originate at the existing phosphate mine in Utah.

Chevron has entered into a contract to purchase 22,500 acre-feet of water for the project from the State of Wyoming. The water, supplied from the Fontenelle Reservoir, would be released into the Green River and withdrawn downstream near the city of Green River.

Pacific Power and Light Company (PP&L) would provide electricity for the proposed project.

The right-of-way (ROW) permits applied for traverse BLM administered lands in Wyoming and Utah, and utilizes Forest Service (FS) administered lands for a microwave site in Utah. Applications have been filed by Chevron for the phosphate slurry line, railroad spur, and water line to the plant site. ROW permit applications still need to be filed for the microwave sites, access roads, county road relocation, powerlines and substations. Each BLM district and the Ashley National Forest will issue their own respective ROW's separately.

However, this Record of Decision will address the required ROW's in total. Construction and operation plans with site-specific stipulations will be prepared subsequent to this ROD by Chevron and submitted to the issuing offices for approval. Review of those documents can be arranged by contacting the Rock Springs District, Salt Wells Resource Area Manager (307-362-7350), Vernal District, Diamond Mountain Resource Area Manager (801-789-1362), or Ashley National Forest, Vernal, Utah (801-789-1181).

B. DECISION

Based upon the analysis of environmental consequences described in the Chevron Phosphate Project Environmental Impact Statement, and in consideration of all public, State and Federal agency, and industry comments received, it is the decision of the BLM, with the concurrence of the FS to the extent lands they administer are affected by the subject action, to approve, but as modified, the action applied for. As a result of Chevron's announced delay in their project plans, the cumulative impacts associated with this project will be reevaluated prior to granting any of the requested Federal actions to determine if they are still within the parameters considered in the EIS. The following describes the modified approved actions as they affect public lands:

Fertilizer Plant - The plant location is on private and State land and therefore beyond the purview of the BLM.

Phosphate Slurry Pipeline - The alignment approved is the one described as the MAPCO alternative.

The line would head northeast from the Vernal mine site for about 8 miles to a point just east of the northeast corner of the property. At this point, it would turn east across Diamond Mountain to intersect the route of the existing MAPCO pipeline at about MP A17. The slurry pipeline would then parallel the existing MAPCO right-of-way through Mail Draw and down through Rye Grass Draw to the Green River at about MP A33.5.

The pipeline would then continue northward, cross the Green River, and climb through Jesse Ewing Canyon along its west side. From here, it would turn to the northwest and cross Clay Basin to Richard's Gap at about A47.5. The pipeline would then continue north, paralleling the MAPCO and Mountain Fuel pipelines to the booster pump station at MP A50.5.

The booster pump station, surrounded by a 6-foot high, chain-link security fence, would be located adjacent to the existing county road. The slurry pipeline would leave the booster pump station, ascend the Red Creek Escarpment (MP B5 to B7), parallel the MAPCO and Mountain Fuel pipelines to MP B24 before diverging to the northeast. The pipeline, trending north, would drop into Little Bitter Creek drainage generally paralleling the east side of the Little Bitter Creek County Road. The line would continue north until it intersects Mountain Fuel's east-west pipeline running up Rock Canyon; there it would turn east paralleling the Mountain Fuel line to MP B40 where the slurry line would turn northeasterly and enter the fertilizer plant at MP B45.8.

Total length of the slurry pipeline is 96.3 miles, and approximately 624 acres would be disturbed.

Slurry Pipeline Water Supply - Approved as proposed.

The slurry water supply will be obtained from water in the existing tailings pond at the Vernal phosphate mine. Water would be required at an initial rate of 930 acre-feet per year, and would eventually increase to 1,290 acre-feet per year. This increase in water demand would be due to the increase in flow of phosphate in the pipeline. The use of this water source would no be different from that which presently exists.

Plant and Process Water Supply - The alignment approved is the Nightingale Station alternative. The Nightingale Station alternative would follow Wyoming State Highway 430 for about 1.1 miles after leaving the plant site. From this point, it would turn west for about 1.8 miles where it would intersect the Trailblazer pipeline right-of-way.

From the point of intersection, the pipeline would parallel the Trailblazer right-of-way for about 9 miles, crossing Sweetwater Creek at MP 5.5, Little Bitter Creek at MP 7.1, and pass approximately 0.25 miles north of the Nightingale Station at about MP 10.5.

From MP 11.9 to MP 16.3, it would parallel the existing Mountain Fuel, Pioneer, and Colorado Interstate Gas pipelines. It would continue west crossing Bitter Creek at MP 16.7 and then follow the Union Pacific railroad to the intake structure site on the Green River, located in the SE $\frac{1}{4}$ of Section 23, T. 18 N., R. 107 W., adjacent to the Union Pacific railroad switching yard.

The total length of this 18-inch diameter pipeline would be 17.4 miles.

Railroad Spur - The proposed alignment is approved. This 8.7-mile, 1.5 percent grade railroad spur would leave the main line just east of Rock Springs, Wyoming near the center of Section 29, T. 19 N., R. 104 W. The spur would cross Bitter Creek on a new bridge and would continue southeast. Culverts would be placed at all drainages along the railroad. The spur would continue to the southeast, continually gaining elevation until reaching the plant.

Microwave System - The proposed system is approved. The system would interconnect the Vernal mine, the phosphate fertilizer plant, and the slurry booster pump station near Richard's Gap, Wyoming.

The Vernal mine site lies in a canyon; in order for a microwave path to be established to the north, an elevated repeater station south of the mine would be required. The existing Blue Mountain site is located in Section 30, T. 5 S., R. 25 E.

From Blue Mountain, the microwave signal would go to Grizzly Ridge (which is located on FS lands) where it would be sent to Wilkin's Peak. From there, it would continue to the plant site. From Wilkin's Peak, the signal would also be sent south to Tepee Mountain and the booster pump station.

The Grizzly Ridge site is located on the Ashley National Forest. The final decision on exact location and site specific stipulations is the responsibility of the F.S.

Blue Mountain, Grizzly Ridge, and Wilkin's Peak are existing microwave sites with access roads and power. Tepee Mountain has an existing access road and drill pads which could be used for microwave equipment.

Power Transmission Lines and Substations - The two power substations and power transmission lines to the plant site and to the booster pump station are approved as proposed in the EIS.

Electrical power for the fertilizer plant would be supplied by way of a new 34.5 kV power transmission line originating from a new substation located on an existing 230 kV line, 7 miles west of the plant. The new power transmission line would parallel the new phosphate slurry pipeline right-of-way for the last 1.8 miles entering the plant.

Power for the booster pump station would be supplied by a 34.5 kV power transmission line originating from a new substation which would be located about 7.5 miles west of the booster pump station.

County Road Relocation - A portion of County Road 4-27 is located within the area that would be buried by the proposed gypsum stack. The existing county road would be dead-ended at the southern boundary of Section 17 and would be reconnected with Wyoming State Highway 430 forming a new intersection the the NW¹/₄ of Section 15, northwest of the process area (see Map 1-3). The relocation would be completed before the existing road in the gypsum impoundment area is abandoned.

C. ALTERNATIVES CONSIDERED, INCLUDING PROPOSED ACTION

1. Alternatives Considered

a. Fertilizer Plant - No other plant site location was considered by BLM. The lands involved are private and State, and preliminary arrangement had been made between Chevron Chemical Company and the land owners.

b. Phosphate Slurry Pipeline

(1) MAPCO Alternative

The MAPCO alternative is the same as that described under Section B, Decision.

The MAPCO phosphate slurry pipeline alternative would be adjacent to an existing linear right-of-way for 66.1 miles. It would be in a new area for 30.2 miles (19.2 in Utah, 11 in Wyoming).

(2) Northwest Alternative

This alternative would be 88.1 miles long and would disturb 580 acres (including associated facilities). This route would be in the same location as the MAPCO route for the first 9 miles. At this point, it would continue northeast, where it would intersect the Northwest pipeline right-of-way. The Northwest phosphate slurry pipeline route would join and parallel the existing Northwest pipeline right-of-way northwest through Davenport Draw and cross the Green River near Little Hole Campground.

The pipeline route would then turn westward, still paralleling the Northwest pipeline. It would then branch away and head northwest to Dutch John Canyon. It would then proceed north and northeasterly around the base of Goslin Mountain by way of Dutch John Canyon and Antelope Flat, and continue northeasterly intersecting the MAPCO route at a point north of Richard's Gap. From Richard's Gap to the booster pump station, the route would be the same as MAPCO.

The Northwest Phosphate Slurry Pipeline Alternative would be adjacent to an existing linear right-of-way for 51.3 miles. It would be in a new area for 36.8 miles (24.7 in Utah, 12.1 in Wyoming).

(3) Willow Creek Alternative

This alternative would be 96.8 miles long and would disturb 627 acres (including associated facilities). The Willow Creek alternative would leave the MAPCO route immediately after crossing the Green River in Brown's Park, rise approximately 1,000 feet in elevation over the next 3 miles, and then would start side-hill sloping upwards along Cottonwood Draw and paralleling Jesse Ewing Canyon. The pipeline would rise approximately 800 feet within the first 2.25 miles, and generally follow the 6,400- to 6,600-foot elevation contour until it tied into the MAPCO route at the top of Jesse Ewing Canyon.

At this point, for approximately 1 mile, the route would encounter many of the same problems discussed for Jesse Ewing Canyon. In particular, the preparation of a work pad in the rocky hillside will unavoidably cause spoil and rock to be deposited on the roadway in the canyon. It would, therefore, be necessary to periodically close the road to public access for period of time during construction.

The Willow Creek Phosphate Slurry Pipeline Alternative would be adjacent to an existing linear right-of-way for 62.2 miles. It would be in a new area for 34.2 miles (23.2 in Utah, 11 in Wyoming).

(4) Proposed Action

The proposed action or Red Creek Canyon Phosphate Slurry Pipeline is the same as the MAPCO Alternative with the exception that at MP A37, after crossing the Green River, the line would turn west to Red Creek Canyon, proceed north through the canyon and rejoin the MAPCO Corridor at MP A47, just south of Richard's Gap.

The proposed action alignment would be 98.2 miles long and would disturb 617 acres. This alignment would be adjacent to an existing right-of-way for 58.1 miles and would be in a new area for 40.1 miles (29.1 in Utah, 11 in Wyoming).

c. Slurry Water Supply Alternative

(1) Jensen Slurry Water Supply

For this alternative, part of the water that would be released from the Fontenelle Reservoir would flow down the Green River from Wyoming through Colorado and into Utah where it would be picked up near Jensen, Utah. From there, the water would be pumped to the mine site through a 12-inch diameter pipeline. The location of this alternative is shown on Map 1-2 of the DEIS.

The total pipeline length originating from the river and extending northwest to the mine would be about 19 miles. A new power transmission line would be constructed from existing power lines located 0.6 mile west of the pump station.

The Jensen Slurry Water Supply Pipeline Alternative would be located adjacent to an existing linear right-of-way for 18.4 miles. For 0.6 mile, it would be located in a new area. The pump station and intake structure would be designed the same as the proposed Davis Bottom station in Wyoming. In order for the alternative to be utilized, the Colorado State Engineer would have to approve the appropriation of the water from Colorado. This would likely require a modification of the Colorado River Compact.

d. Plant Process Water Supply Alternatives

(1) Davis Bottom Plant Process Water Pipeline

Construction of the 18-inch diameter water supply pipeline from Davis Bottom at Flaming Gorge Reservoir (NW $\frac{1}{4}$, Section 16, T. 17 N., R. 106 W.) to the plant site, water intake structure at Davis Bottom, power transmission line, and road improvements would disturb approximately 140 acres.

A 34.5-kV power transmission line with wooden poles spaced at 250- to 300-foot intervals would provide the electricity. The power transmission line would extend south, 4.5 miles from the proposed plant substation, paralleling the existing 230-kV power transmission line. From this point, the transmission line would proceed west to the proposed pump station location.

Access to the pipeline right-of-way would be from an existing road and trail that traverses the MAPCO pipeline right-of-way. The road would require 0.7 mile of new construction to allow for passage of concrete and other large supply trucks to the construction site at Davis Bottom. Minor upgrading would be required along the 4.3-mile long existing road, followed by gravel surfacing of the entire 5 miles, where required, to ensure all-weather access. After construction, the pump station would be inspected two to three times a week.

The Davis Bottom plant process water pipeline would be located adjacent to an existing pipeline for 6.6 miles, while 9.8 miles would not be located adjacent to any type of existing linear right-of-way.

(2) Middle Firehole Plant Process Water Pipeline

The Middle Firehole Plant Process Water Pipeline would be located adjacent to an existing linear right-of-way for 15.4 miles. It would be located in a new area for 5 miles. The 18-inch diameter pipeline design and the pump station would be the same as those described for Davis Bottom. The water intake structure and pump station would occupy about 1 acre.

Power to the site would be supplied from the substation that would feed the plant. The power transmission line would extend south and then west to the Green River and would be about 14 miles long. The microwave system would be the same as identified for Davis Bottom, except that the tower at the intake pump station would be approximately 150 feet high.

(3) Big Sandy Unit, Colorado River Water Quality Improvement Program

This alternative would supply a portion of the process water to the plant from the Big Sandy River unit. The Bureau of Reclamation and the State of Wyoming have been working very closely on a joint unit study and have signed an agreement which outlines their responsibilities for the remainder of the study.

The primary purpose of the agreement is to tie the Bureau of Reclamation's objective of salinity reduction to the State of Wyoming's water development plans.

The State of Wyoming has contracted with Chevron to provide water for the proposed fertilizer plant near Rock Springs; and as part of the contract, Wyoming has the option to supply some of the Chevron plant's water needs with saline water from the Big Sandy River unit.

2. Alternatives Considered But Eliminated From Detailed Analysis

The following alternatives for phosphate transport, plant water supply, railroad spur, and slurry water supply were considered but eliminated from detailed analysis in the EIS. The Chevron DEIS provides detailed discussion of these on pages 1-37 thru 1-40 and general locations are shown on Map 1-4.

a. Phosphate Slurry Pipeline

(1) Truck Transportation of Phosphate

The existing highway (U.S. 191) could not handle 150 40-ton trucks each day; new highway construction would be required; winter safety of truck operation over the Uinta Mountains in the winter was also a consideration.

(2) Phosphate Slurry Line Wyoming Direct

The drop in elevation in the final few miles of pipeline approach to the plant site would result in excessive slurry head pressure causing abrasion of equipment, operational problems, and requiring high maintenance.

(3) Northwest Slurry Line Alternative B

Dropped due to design constraints and no environmental advantage over the Northwest Phosphate Slurry Pipeline Alternative.

(4) Irish Canyon Slurry Line Alternative

Dropped due to a number of environmental, engineering, and economical constraints.

(5) Jackson Draw Slurry Line Alternative

Dropped due to excessive slope descending into the Green River exceeding allowable maximum gradient. Switchbacking would cause excessive benching in solid rock and significantly degrade visual resources.

(6) Red Creek Badlands WSA Slurry Line Alternative

Dropped because alignment would pass through the center of the Wilderness Study Area (WSA).

b. Plant Process Water Supply Alternative(1) Big Firehole Plant Water Supply Pipeline Alternative

Dropped because its added length would result in increased disturbance and cost.

c. Slurry Water Supply Alternative(1) Slurry Water Supply Pipelines Paralleling The Proposed and Alternative Slurry Lines to the Green River

Dropped due to increased disturbance from additional length and paralleling pipelines, increased length over other alternatives thus requiring a pumping station at a site where a new power transmission line would be necessary, all of which add to more cost and environmental damage.

d. Railroad Spur (1 and 2 Percent Grade)

Two percent grade was dropped due to required installation of retard equipment and use of extra engines to ensure safe operation.

One percent grade was dropped due to increased length, more disturbance and no environmental benefits over the one and one-half percent grade.

3. No-Action Alternative

Without the rights-of-way, Chevron would not be able to develop the proposed fertilizer complex since it has been determined that trucking phosphate rock, sulfur, and water is infeasible.

4. Environmentally Preferred Alternative

The CEQ regulations require the Record of Decision to include environmentally preferred alternatives. The BLM has identified the Agency Preferred Alternative as the environmentally preferred.

D. MANAGEMENT CONSIDERATIONS

The following management considerations were key in the decision to authorize the selected Chevron Phosphate Project rights-of-way.

1. Phosphate Slurry Pipeline Alternatives

The Northwest alternative was eliminated as a viable route because of the fact that this alternative would be in conflict with the law, intent and purpose for which Congress established the Flaming Gorge National Recreation Area.

The Willow Creek alternative was eliminated as a viable route because of the impacts to the county road and working hazards around the MAPCO pipeline in Jesse Ewing Canyon. Possible damage and/or shutdown of the MAPCO pipeline could occur. This would result from excess materials (rock, etc.) tumbling downward onto the county road and existing pipeline right-of-way. This route would also create a new corridor, which is contrary to the Diamond Mountain Land Use Plan.

The remaining viable routes for consideration were MAPCO and Red Creek Canyon.

The MAPCO route would be 1.9 miles shorter than the Red Creek Canyon (Proposed Action) route, which slightly reduces most of the impacts that would be incurred from implementation of the Proposed Action. These impacts are compared in Table 2-5 of the DEIS.

The major difference between the MAPCO and Proposed Action routes is that the alternative would follow the existing MAPCO alignment through Jesse Ewing Canyon. The Proposed Action would follow Red Creek Canyon out of Brown's Park into Clay Basin, thus adding additional sediment to Red Creek and the Green River for a 1-year period and opening a new utility corridor.

Impacts for the following resources would be the same for the MAPCO alternative and Proposed Action: socioeconomics, air quality, recreation, cultural resources, and health and safety. Resources that have different impacts because of the alternative alignment through Jesse Ewing Canyon are identified in the following resource discussions.

Water Resources: The alternative would exit Brown's Park through Jesse Ewing Canyon instead of Red Creek Canyon (Proposed Action). Therefore, the impacts to water quality in the Brown's Park area would be less than the Proposed Action since there would not be the impact of additional sediments from Red Creek Canyon.

Transportation Networks: The MAPCO alternative would compliment Dagget County plans to construct a new road through Jesse Ewing Canyon. The new road would utilize the pipeline construction work area for its base.

Wildlife: The alternative would disturb 18 less acres of short term, normal winter elk range than the Proposed Action. However, 50 more acres of short-term critical pronghorn range would be disturbed by this alternative. All other wildlife habitat losses would be the same as indicated for the Proposed Action.

Visual Resources: The difference between the alternative and the Proposed Action is that 12 less acres of VRM Class II would be disturbed by implementation of the alternative.

Land Use Plans: The MAPCO alternative is consistent with the BLM Vernal District Management Framework Plan for the Diamond Mountain - Browns Park area which restricts the location of new pipelines to existing corridors. The Proposed Action would be in conflict with this plan.

Other Management Considerations: The cost of construction, reclamation, and maintenance of the MAPCO alternative when compared to the Proposed Action (Red Creek alternative) would result in an approximate savings to Chevron of \$390,000 for construction and \$32,000 annually in maintenance costs (as per Chevron letter dated July 26, 1983).

The MAPCO alignment follows existing disturbance 77 of its 96 miles, as compared to 69 of the 98 miles for the Proposed Action.

There is currently a road and a pipeline up Jesse Ewing Canyon while Red Creek Canyon is a relatively undisturbed area.

Without careful construction techniques and strict enforcement of reclamation plans, those points where the pipeline would encounter unstable banks and bed (approximately 50 percent of the pipeline length in the watershed) could become sediment contributors to the Green River. Similarly, trenching through the canyon would disturb alluvial materials that are temporarily stored in banks and as bed materials. Although removing the alluvium would reduce the amount of sediment available for transport, construction would loosen materials that may temporarily increase sediment that would eventually reach the Green River. Sediment from Red Creek Canyon could reach the Green River, causing a short-term impact lasting approximately 2 months; the degree would be determined by the runoff events that occur during and immediately after construction.

Public Comment - Local citizens of Browns Park and the Dagget County Commissioners all expressed their preference for the MAPCO alternative. They felt that the pipelines should be kept in the same corridor so the least amount of new area would be disturbed. The county would also like to use the slurry pipeline alignment for a new county road through Jesse Ewing Canyon.

Implementation of the proposed action or the phosphate slurry pipeline alternatives would affect one or more key issue areas. The areas are identified and described in detail in various sections within the draft EIS.

These issue areas include the following:

Rye Grass Draw - This area contains slopes exceeding 15 percent that would require contour alignment adjustments. This issue area would be affected by implementation of the Red Creek Canyon, MAPCO, and Willow Creek pipelines.

Red Creek Canyon - This area contains a narrow floodplain and a stream course with hard bedrock floor. Construction activities would cause extensive cuts in the floodplain deposit, creating areas of unconsolidated materials that would be subject to erosion and accelerated stream cutting during periods of flash flooding. This area would be affected by only the Red Creek Canyon pipeline.

Red Creek Basin Escarpment - This area contains very steep sideslopes (35 to 45 percent) and unstable soil conditions. Only by switchbacking pipeline construction through this area can the impacts, caused by extensive sidehill cuts, be reduced. Implementation of the proposed action and any of the phosphate slurry pipeline alternatives would affect this issue area.

Jesse Ewing Canyon - This area contains a narrow floodplain with hard bedrock floor and slopes greater than 15 percent. The canyon also contains a county road and the MAPCO pipeline. The canyon would be affected by the MAPCO and Willow Creek alternatives.

Willow Creek - This area contains steep and very steep rocky sideslopes and hard bedrock. Only the Willow Creek alternative would affect this area.

Goslin Mountain - This area contains steep rocky sideslopes underlain by hard bedrock. The Northwest alternative would affect this area.

These key areas would require more intensive construction, stabilization, and restoration measures to minimize soil erosion and other related factors. In addition, more intensive supervision of the reclamation measures would be required.

2. Slurry Water Supply Alternatives

Since the Proposed Action would use an existing tailings pond as its source of water supply, no new impacts are anticipated.

3. Plant Process Water Supply Alternatives

The Nightingale Station alternative was proposed by Chevron (applicant) shortly after the draft EIS was published to develop a viable alternative to the Davis Bottom plant process water pipeline and the Middle Firehole alternative which is located outside of the Flaming Gorge National Recreation Area (NRA); this is also a permitting contingency established by ISA.

The total length of this alternative would be 17.4 miles. Of this length, the buried pipeline would be located adjacent to an existing linear right-of-way for 14.9 miles, and would be located in a new area for 2.5 miles.

The 18-inch diameter pipeline and the pump station design would be the same as those described for the Proposed Action, and would be located adjacent to a highly developed area. Because of this existing development, power and communication facilities are readily available and no microwave station would be required.

This alternative would be 1 mile longer than the Davis Bottom proposed action route. However, it would not require any new road or any disturbance for construction of a power distribution line; therefore, the acreage disturbed would be less than the proposed action. These impacts are identified by component and resource, and compared in Table 2-3 of the FEIS.

E. MITIGATION

The mitigation measures contained in Appendices 1 and 2 were identified during impact analysis and are committed to by the permitting agencies. These measures will become stipulations attached to the right-of-way grants associated with the Chevron Phosphate Project. There is some duplication between Appendix 1, developed by the Wyoming Industrial Siting Administration, and Appendix 2, developed by the Federal agencies and Chevron.

As a condition for granting the various rights-of-way and permits, Chevron will be required to prepare a Construction and Operation (CO) plan covering the construction and operation of all project facilities. The plan will contain the site-specific application of the mitigation measures contained in these Appendices.

A Biological Opinion concerning threatened or endangered species has not been completed by the U.S. Fish and Wildlife Service. No rights-of-way will be granted until Section 7 of the Endangered Species Act has been complied with.

F. MONITORING

In order to achieve successful reclamation and erosion control on lands disturbed by project development and operation, an intensive reclamation program would be required. The reclamation measures that would be incorporated into the Chevron Construction and Operation Plan are described in Appendix 2.

It is predicted that successful erosion control, reclamation, and revegetation generally would be achieved throughout the project area provided that Chevron implements effective measures and procedures tailored to the kind of land disturbance and to the conditions encountered. It is emphasized, however, that a strong compliance program is necessary to ensure that applicable measures are effectively applied and that follow-up measures are carried out. The compliance program would be conducted by the appropriate authorizing agencies on lands under their administration. Adverse impacts would be significant if applicable erosion control measures were not implemented due to lack of compliance with approved plans or if adverse weather conditions, mainly heavy rainstorms, occurred during construction before any erosion control measures could be installed.

A monitoring program has been agreed upon which is designed to detect significant (10 percent or greater) increases in community infrastructure and transportation systems demand as a result of the Chevron project. Should significant impacts occur, Chevron will work out solutions to the problem with the applicable jurisdiction. The monitoring program will be conducted in cooperation with the Sweetwater County Association of Governments and the Rock Springs city planning office. The proposed mitigation and monitoring programs are included in the Chevron Phosphate Project Industrial Siting Administration permit conditions, Appendix 1, item 43 and 49. Chevron will also be required to place monitoring wells down-gradient of the cutoff trench of the gypsum impoundment to determine if operations will result in adverse impacts on nearby springs and surface water flows (ISA permit conditions number 15, 16, e and g.

In conjunction with monitoring downwind impacts of cooling tower emissions on soils, vegetative cover and productivity (ISA permit condition, 24), it is recommended that Chevron establish a monitoring program, in cooperation with the Wyoming Game and Fish Department and BLM, to detect wind-borne fluorides and the potential effects of this element on wildlife, vegetation, and habitats. Included in this recommendation is baseline monitoring prior to plant construction. This monitoring and research program should follow guidelines in the proposed permit conditions of ISA, Item 24.

G. PUBLIC INVOLVEMENT

The Bureau of Land Management (BLM) requested and received consultation from many organizations and individuals, public and private, in developing the draft and final environmental impact statement on the proposed Chevron Phosphate Project.

Draft EIS Consultation and Coordination

The BLM Wyoming State Director and the State of Wyoming, Office of Industrial Siting Administration (ISA), had joint-lead responsibility for preparation of the environmental impact statement. The BLM Division of EIS Services, located in the BLM's Denver Service Center, wrote and printed the EIS. The BLM elicited the help of the following federal agencies in the areas indicated:

Bureau of Reclamation - Analysis of the effects of the project to water resources and approval of the water sales contract between the State of Wyoming and Chevron.

Fish and Wildlife Service - Analysis of the effects of the project to aquatic biology and threatened and endangered species.

Forest Service - Analysis of the effects of the project to various resources on land managed by the Forest Service.

Army Corps of Engineers - Consultation on Section 404 permitting process.

The first three agencies were considered to be cooperating agencies and, as such, had individuals assigned to the EIS team. Other team members included BLM personnel and personnel from ISA. Information about EIS team members is included in the List of Preparers, identified in the draft EIS.

Public Review of the Draft EIS

The draft environmental impact statement was filed with the Environmental Protection Agency on January 12, 1983, and announced in the Federal Register on January 6, 1983. In addition, media releases were sent to radio stations and newspapers in the states that would be affected by the proposed action of its alternatives. The releases announced the availability of the draft environmental impact statement (EIS) and locations of the public hearings, described the proposed action, identified key impacts, and requested public comment on the adequacy and accuracy of the statement.

Approximately 1,000 copies of the draft EIS were distributed by mail to various individuals, organizations, and government agencies (see Table 5-1 of the FEIS).

During the 60-day public comment period, BLM conducted two formal public hearings to solicit public comments on the draft EIS (refer to Table 5-2 for locations and other details).

The BLM also received 24 letters addressing the draft EIS during the public comment period. All letters and testimony were assigned a reference number and reviewed. Substantive comments (those that presented new data, questions of new issues bearing directly on the effects of the proposed action and its alternatives) were responded to; where appropriate, draft EIS sections were revised.

The final environmental impact statement was filed with the EPA on July 22, 1983, and announced in the Federal Register on July 21, 1983. During the 30-day comment period, two letters were received, neither of which contained additional substantive comments.

APPENDICES

Appendix 1 Office of Industrial Siting Administration Permit Conditions to Mitigate Environmental and Socioeconomic Impacts

Appendix 2 Required Federal Measures, Reclamation Procedures, and Chevron Standard Construction and Operation Procedures Designed to Reduce Environmental Impacts

A2.1 Required General Federal Mitigation Measures

A2.2 Required Federal Reclamation and Erosion Control Procedures

A2.3 Chevron Standard Construction and Operation Procedures Designed to Reduce Environmental Impacts

A2.4 Special Federal Mitigation Measures

APPENDIX 1

OFFICE OF INDUSTRIAL SITING ADMINISTRATION

Permit Conditions to Mitigate Environmental and Socioeconomic Impacts

1. The Applicant will participate in the development and implementation of a mitigation program to address project-related impacts on the Wyoming Game and Fish Department. If a temporary warden position is required during construction and funding is unavailable from other sources, the Applicant will fund a temporary position for that time.
2. The Applicant will develop a weapons policy and an environmental awareness training program in cooperation with the Wyoming Game and Fish Department and present the program to its employees.
3. If the final selected site for the water intake structure is Davis Bottom, then the microwave tower will be located in such a manner as to minimize visibility from the Green River and the west bank.
4. Since water for the project will not be available from the Big Sandy Project as originally contemplated, the Applicant shall conduct further evaluation of possible intake structure locations and pipeline routes, including locations which would be outside the National Recreation Area. These studies shall be completed by January 1, 1984, and shall be reviewed by ISA in coordination with BLM, the Applicant, and other federal agencies to develop a final intake structure location. If a consensus cannot be reached, the matter shall be referred to the ISC (**Industrial Siting Council**) for resolution.
5. Before construction commences, the preliminary design of the water intake structure and pump house shall be submitted to the ISA and Wyoming Game and Fish Department for their approval. The design of related facilities to the intake structure, such as the access road and power line, must also be submitted to the ISA for review and approval.
6. If the final site selected for the water intake structure is at Davis Bottom, then the water pipeline shall be parallel and immediately adjacent to the existing MAPCO pipeline right-of-way as it leaves the Davis Bottom area, unless the Forest Service designates otherwise.
7. The Applicant's proposed routing of the slurry pipeline out of the Red Creek Badlands has been modified by BLM, and Chevron shall adopt the BLM modifications.
8. Baseline studies of vegetative productivity at the plant complex shall be conducted using DEQ-LQD Guideline Number 2 and must be submitted to the ISA prior to the commencement of construction.
9. Non-endemic plant species should not be used in reclamation unless approved by ISA and the Wyoming Game and Fish Department.

10. The seed mixture will provide vegetative diversity and, for the plant site, should include forbs, grasses, and shrubs.
11. The Applicant will coordinate with the Wyoming Game and Fish Department regarding scheduling of construction activities in the Red Creek Badlands and in other important big game ranges, and will follow the reasonable recommendations of the Wyoming Game and Fish Department in consultation with BLM regarding scheduling of activities in these areas.
12. In order to avoid adverse impacts on sage grouse, and their breeding habitats, the Applicant will:
 - a. Route around sage grouse leks;
 - b. Avoid construction activities within sage grouse breeding complexes during the breeding period;
 - c. Restrict vegetation disturbance within and adjacent to these breeding complexes to the minimum necessary to lay the pipeline (i.e., no lay down areas or permanent access roads within the breeding complexes);
 - d. Not employ vegetative control within or adjacent to rights-of-way traversing breeding complexes; and
 - e. Revegetate only with native plants in or adjacent to these complexes.
13. Once center lines for linear facilities are determined, the Applicant will resurvey affected areas for raptors. The Applicant will negotiate with the Fish and Wildlife Service and Wyoming Game and Fish Department to develop appropriate mitigation of adverse impacts on any nesting raptors that could be affected by project activities. The mitigation measures developed in cooperation with the Fish and Wildlife Service and Wyoming Game and Fish Department will be provided to the ISA before commencement of construction.
14. The effects of the withdrawal of 500 gpm of ground water for construction and for potable water during operations will be evaluated by the Applicant. Other water rights, if any, that are located within the expected cone of depression of the Applicant's wells will be listed and submitted with effects analysis.
15. The Applicant will place monitoring wells down-gradient of the cutoff trench of the gypsum impoundment. The well positions and parameters to be monitored will be approved by the Wyoming Water Quality Division of DEQ (DEQ-WQD). The Applicant shall also provide the well positions to the ISA for its review and approval concerning whether the monitoring system is adequate to determine if operations will result in adverse impacts on nearby springs and surface water flows.
16. Prior to constructing the compacted earth cutoff trench, the Applicant shall do the following:
 - a. Additional borings will be done to better define the appropriate depth of the cutoff trench;

- b. Additional studies (using gypsum slurry from the Salt Lake plant) will be conducted to more accurately determine the soils capability to absorb specific leachate;
 - c. Provide for DEQ-WQD and ISA inspection of the trench during construction;
 - d. The Applicant will plan construction to allow for filling any fractures encountered in the cutoff trench. This would be done with grout, deeper excavation, or other methods as determined appropriate;
 - e. The Applicant will develop, in cooperation with the DEQ-WQD and ISA, a monitoring program designed to detect any pollutant migration beyond the cutoff trench;
 - f. Since the existing gypsum impoundment plans are preliminary, completed and detailed plans will be due at the Industrial Siting Office for review and approval at the same time such plans are submitted to the State Engineer's Office and the DEQ-WQD; and
 - g. If adverse quantities of pollutants are detected down-gradient of the cutoff trench, the Applicant will take appropriate remedial action to control the migration. The appropriate action would be developed in cooperation with the DEQ-WQD and ISA and may consist of recovery wells or of constructing an additional seepage control barrier.
17. The Applicant will provide topsoil stripping maps for the plant site which show the limits of disturbance, topsoil mapping units, and locations of topsoil stockpiles. The maps will be accompanied by computations of topsoil quantities and times when topsoil will be stored in each pile. Guideline No. 1 of DEQ-LQD will be followed in determining topsoil suitability and in choosing mapping techniques.
18. The Applicant will collect post reclamation gamma-level data on the gypsum impoundment and will ensure that gamma levels are reduced, if necessary, so as not to exceed baseline gamma levels. DEQ-LQD Guideline No. 3 will be followed when conducting the baseline and post reclamation gamma surveys. The Applicant will limit radon emanation to twice the background rate for the gypsum area.
19. During construction and operation, the Applicant will adopt the following policies:
- a. All disturbances will be stabilized as quickly as possible to minimize erosion by wind and water;
 - b. All gulleys or rills formed or on affected areas will be repaired and stabilized;
 - c. All disturbances will be kept to a minimum;
 - d. Topsoil stockpiles will be protected from wind and water erosion by seeding and proper location; and

- e. Topsoil will be protected from acid and toxic materials and from degradation.
20. The Applicant will include the following as part of the reclamation plan:
- a. Final contour maps will be provided for the project area and railroad plus 1/2 mile on all sides, showing the post operation contours of the gypsum impoundment, cooling pond, and plant site after removal of structures and pavement. As part of the gypsum reclamation plan, optimum slope and topsoil cover for reclamation of the gypsum impoundment will be studied. The details of this study will be included in the reclamation test plan to be submitted for approval to ISA prior to initiating the study. All other contours will be 5:1 or less, except for linear facilities which will not exceed 3:1;
 - b. Soils harmful to vegetation, wildlife, or livestock will be buried to a depth that would render that substance harmless and yet not contaminate ground water;
 - c. The Applicant will replace all topsoil, protect the topsoil by mulching or other measures, and will seed the topsoil using species, rates, and dates to be agreed upon with the ISA;
 - d. The Applicant will fence all reseeded areas until a sustaining stand of vegetation has been established. However, the Applicant shall not be required to sub-fence the fence around the plant nor fence any linear areas;
 - e. The Applicant will engage the reclamation plan upon termination of the project; termination of the project is hereby defined as cessation of construction and operation of the plant for a period of 2 years unless the Applicant submits evidence that economic conditions will permit resumption of operations after the 2-year period has expired; and
 - f. The Applicant will remove all aboveground structures, and all disturbances will be reclaimed upon termination of the project.
21. The Applicant will maintain close contact with the State Historic Preservation Office (**SHPO**) so that the survey, site evaluation, and mitigation phases of the cultural resource work can be completed in a timely and efficient manner. Cultural clearance from the SHPO will be obtained prior to commencement of construction. All earth moving activities will be monitored for the presence of previously unknown cultural resources.
22. Prior to the commencement of construction, the Applicant will develop a health and safety plan as provided in Section 2.4 of the Staff Review and in coordination and cooperation with OHS (**Office of Health and Safety**) and ISA.

23. The Applicant will fully comply with rules and regulations as promulgated by OHS and cooperate with that office and with ISA in mitigating any potential hazards as identified in Section 2.4 of the Staff Review and not covered under the present rules and regulations of OHS.
24. The Applicant will retain an independent contractor to determine if downwind impacts of cooling tower emissions on soils, vegetative cover, and productivity can be isolated and analyzed. If possible to isolate and analyze downwind impacts of cooling tower emissions, the monitoring program will be developed and implemented by an independent research group and approved by ISA. The program may include baseline data collected before production commences and then during production from areas outside of the area of influence. This baseline data can then be compared to that collected during operation, over an appropriate timeframe, within the area of site influence. All emissions, including suspected trace emissions, of the cooling tower should be identified, quantitated, and the data provided to ISA.
25. Before construction of the water intake structure begins, the Applicant will provide to the ISA and the Wyoming Game and Fish Department, an analysis of the effects of suspended solids on water quality and aquatic biota, including estimates of downstream distances affected.
26. At all stream and drainage crossings by any of the linear facilities, the Applicant will employ adequate sediment control measures to minimize increases in total suspended solids as a result of surface erosion and stream bottom disturbances.
27. The Applicant will provide adequate spill control measures and emergency response for all chemicals and materials transported to and from the plant by either rail or truck. Bills of Lading accompanying these shipments will list Chevron Chemical's name and a toll-free emergency response phone number. The Applicant employs staff knowledgeable in cleanup and containment procedures, on call, 24 hours a day. They can provide cleanup assistance, as well as dispatch a trained emergency response team to the spill site. The Applicant also contracts with a firm that can provide nationwide emergency response assistance, if needed. Through these measures, the Applicant guarantees to provide adequate spill control and to mitigate any adverse impacts that may occur.
28. The Applicant will not use herbicides to control vegetation in or near streams and drainages.
29. Before any hydrostatic test water is released from the slurry pipeline by the Applicant, ISA must be notified. This notification shall include not only the timing of the release, but also the quality, quantity, location, and expected impact of that release.
30. The Applicant will coordinate plans for sediment control measures and timing of construction of all slurry pipeline crossings of Red Creek and its tributaries with the Wyoming Game and Fish Department, to reduce impacts to the maximum extent practical on the population of Colorado River cutthroat trout.

31. The Applicant submits the protocol for cleaning up slurry spills as shown below. The cleanup procedure is general since the method of spill cleanup is dependent upon the size of the spill. The cleanup methods are flexible to respond to a specific situation and will be determined in collaboration with the landowners and appropriate agencies with jurisdiction, including the ISA. The ISA will be notified of any spills which occur.

Protocol

General spill response action guidelines to be followed in the event of a slurry spill are as follows:

Determine Need for Cleanup

Since the phosphate rock concentrate is essentially inert, there may be cases where spill cleanup would result in more environmental damage than leaving the material in place. Consequently, following a spill, the Applicant will determine the need for cleanup, by collaborating with landowners and agencies having jurisdiction.

Cleanup

Cleanup procedures would depend on the size and distribution of the spill. In the case of a large spill concentrated in a small area, heavy equipment such as scrapers and front-end loaders would be used initially to pick up the bulk of the material. The cleanup would be finished manually. In the case of a small spill or a spill where material was spread in a thin layer over a large area, it may be necessary to conduct the entire cleanup operation manually.

Determine Need for Restoration

Following cleanup, the need and specification for restoration would be determined in collaboration with the landowners and agencies having jurisdiction.

32. Before commencement of construction of the linear facilities, final center lines for the linear facilities will be staked by the Applicant and approved by ISA. Information provided will include locations of laydown areas, turnarounds, and access roads. The center line staking shall be completed by the Applicant to provide adequate lead time for thorough review and approval by ISA. Construction of linear facilities and other project components will be subject to unannounced inspection by all entities having jurisdiction.
33. The Applicant shall have responsibility for control and properly disposing of trash resulting from construction activities.

34. Prior to the mining of clay for project use, the Applicant must obtain approval from ISA of its mining activities which are not subject to the review and approval of other state agencies.
35. The Company shall submit annual environmental reports as of December 31st, on or before February 15th, of each year. The annual reports shall contain such detail as the Staff may reasonably require, supplemented with maps, cross sections, aerial photographs, or other material. Annual reports should include:
 - a. Environmental planning efforts not described in the application;
 - b. Efforts to identify and minimize environmental problems;
 - c. Efforts to assure compliance with permit conditions required by the Council;
 - d. Results and analyses of all monitoring programs described herein;
 - e. Results of the specific mitigation requirements contained herein;
 - f. Listing of all permits and approvals obtained during the preceding year, all applications pending, and all permits and approvals for which applications will be made in the following year;
 - g. The extent to which construction has been completed or operations production;
 - h. Progress of all reclamation work;
 - i. Any revised time schedules or timetables of construction, operation, and reclamation, and an estimate of the **0.3** construction and reclamation that will occur in the next 1-year period; and
 - j. The extent to which expectations and predictions made in the Application or previous reports have been fulfilled, and any deviation therefrom.
36. The Applicant shall make every effort to overlap construction work on the slurry pipeline within areas previously disturbed by MAPCO in its existing right-of-way. ISA shall be notified of the Applicant's plan to overlap existing disturbed areas. Such notification shall allow adequate time for ISA review and approval.
37. Any conditions requiring evidence of approval or requiring the preparation of plans or programs for ISA approval prior to the onset of construction must be provided with adequate lead time for ISA review.
38. The Applicant shall, prior to commencement of construction, obtain approval from the State Engineer of the plans and specifications of the gypsum impoundment dam as provided in 41-3-308 W.S.A. 1977, as amended.

39. Applicant's contractors and subcontractors shall establish payroll and general disbursement accounts at banks in Rock Springs to the extent practical during the construction and operation phases of the project. Chevron shall establish general disbursement accounts to the extent practical. During the operational phases of the project, Chevron will maintain a local account.
40. The Applicant, its contractors, and subcontractors, shall have a sales and use tax license for Sweetwater County. Prior to the start of construction, the Applicant will participate in the information seminar conducted by the State Department of Revenue.
41. Since construction of the facility will generate impact assistance payments, the Applicant shall report to the State Treasurer, the Department of Revenue and Taxation, and the ISA when construction commences and when construction is 90 percent complete.
42. The Applicant shall not exceed the number of estimated construction/operation employees by more than 10 percent without amendment of the permit pursuant to Section 12 of the ISA Rules and Regulations.
43. The Applicant shall work closely with the County Commissioners of Sweetwater County to mitigate unforeseen impacts if they occur. The Applicant will monitor medical manpower in relationship to needs during the construction period.
44. The Applicant will guarantee 1.2 million dollars of new revenue to the City of Rock Springs during the construction period. Most or all of this new revenue will be in the form of special impact assistance payments from the State of Wyoming. In the event the special impact assistance revenues are less than the projected \$1.2 million, the Applicant will make up the difference. The Applicant and the City of Rock Springs will agree prior to commencement of construction on the annual distribution of the guarantee during the construction period.
45. Chevron shall ensure adequate housing for project construction workers, supervisory personnel, and permanent employees. This shall be done in a manner that avoids tightening the local housing market to the extent that housing is unavailable to other residents in the community. The housing plan will include an expanded **construction** camp, mobile home pads, and R.V. (**recreational vehicle**) spaces. Prior to the utilization of existing housing, it must be demonstrated to the ISA that existing and anticipated housing supplies are adequate to provide Chevron required housing and meet secondary demands as well.
46. The Applicant will work closely with officials of School Districts No. 1 and No. 2, and will monitor the number of Chevron-related students enrolled in each District during the construction period. If unexpected, adverse impacts occur as a result of the Chevron project, the Applicant will work out a mitigation program to the satisfaction of the appropriate School District, or the question may be referred to the ISC.

47. Chevron will construct turn lanes, acceleration/deceleration lanes, and through traffic lanes at the Highway 430/Plant Site access intersection to alleviate potential transportation congestion and safety hazards. The Applicant will continue to work closely with the Wyoming Highway Department to mitigate any problems which might develop at either the plant intersection or the Highway 430 belt route. The Applicant will work closely with the County Engineer in the analysis, planning, and construction of County **Road 4-27**. Disagreements between the Applicant and the Highway Department or the County Engineer may be referred to the ISC.
48. The Applicant shall maintain fire-fighting equipment and emergency and ambulance service at the plant site during construction of the facility. During operation, the Applicant shall maintain fire-fighting equipment and emergency service at the plant.
49. The Applicant shall develop a two-level monitoring system to determine the direct project-related impacts on affected communities in the area of site influence. Project-related data will be gathered on new employees. In addition, community-specific data on select public services, school enrollments, housing stock, and housing availability will be compiled on a quarterly basis. If monitoring indicates significant deviations from the projected net project-related impact, monitoring of other socioeconomic indices will be triggered to the extent they may be applicable to the problem. The Phase II variables will include: revenue and expenditures, medical services and personnel recruitment, human services, capital facilities/personnel, and banking and availability of credit. Monitoring will be carried out in close cooperation with the Sweetwater County Association of Government's monitoring program and with the City of Rock Springs' planning office. Reports will be published on a quarterly basis until commercial production levels are reached at the phosphate fertilizer plant.

PHASE 1

(Variables will be monitored for Sweetwater County, Rock Springs, Green River, and School Districts No. 1 and No. 2, where appropriate.)

A. Economic and Demographic Conditions

1. Chevron Chemical Phosphate Project employment and associated characteristics:

Occupation

Age

Sex

Marital status

Residence of family

Number of children and ages

Workers per household

Local residence and mode of travel (commuting patterns)

Type of residence

Anticipated length of residence

Length of residence in the area
Previous residence
Employee turnover
Future manpower requirements

2. Other basic employment

3. Secondary employment

B. Housing

1. Occupancy rates at Chevron Chemical housing, by type

2. Number of units available, by location and type

3. Requests for Chevron Chemical housing

4. Vacancies in the existing housing stock and local housing conditions

C. Public Services

1. Education

a. Total enrollments

b. Chevron Chemical Phosphate Project-related enrollments

c. Student-teacher ratios

d. Facilities capacity

e. Budgetary status

2. Public Safety

a. Number of arrests, by category

b. Number of fire calls, by type and fire station

c. Number of ambulance calls

3. Revenue and expenditures

a. Sales and use tax (total and Chevron-related)

b. Impact assistance tax

c. Budgetary status

4. Health and Social Services

a. Department of Public Assistance and Social Services

1. Service caseloads

2. Intakes on income maintenance

3. Day care facilities and rates of utilization

b. Mental Health Center

1. Total number of incidences of treatment

2. Caseloads

3. Number of Chevron-related cases

4. Number of crisis-oriented cases

5. Number of substance abuse cases

c. Health Care

1. Hospital
 - (a) occupancy rate
 - (b) need for allied health professionals
2. Physician Recruitment program

5. Game and Fish Management

- a. Number of violations, by type

PHASE II

(Variables will be monitored if Phase I monitoring indicates significant problems in any area; one or more of the following variables may be monitored to the extent that they may be applicable to the problem.)

A. Human Services

Chevron would check with the following services on a quarterly basis for any adverse impact:

1. Job Service
2. Probation and Parole
3. Sweetwater County Task Force on Sexual Assault
4. Southwest Wyoming Rehabilitation Center
5. Sweetwater County Child Development Center
6. YWCA (**Young Women's Christian Association**)
7. Vocational Rehabilitation
8. Southwest Wyoming Alcoholism Rehabilitation Association
9. Family Planning/Western Wyoming Women's Resource Center
10. Volunteer Information and Referral Service (The analysis would include the following: Service Volume by program, FTE (**full-time employee**) personnel available per program, budget, and adequacy of space and facilities.)

B. Revenue and Expenditures (In Phase II, a more in-depth revenue and expenditures analysis will be taken for the political entity adversely **affected** as indicated by Phase I monitoring. In addition to information collected in Phase I, the following information will be collected.)

1. Per capita operating and capital expenses
2. Bond capacity
3. Total grants and state or federal funds received

C. Banking

1. Availability of home mortgage money and interest rates
50. The Applicant will take reasonable action to obtain qualified workers from the local area and dissuade large numbers of job seekers from coming to the local area.

51. If adverse socioeconomic impacts occur which have not been predicted and for which no mitigation plan is in place and which are the direct result of the proposed Chevron project, the matter may be referred to the ISC for resolution, if it has not been resolved by community and company officials. The ISC may require mitigative assistance from the Chevron project only if no alternative funding is available.
52. Because the Applicant expects construction of the project to be delayed for a period of time from the schedule set forth in its application, the Applicant shall take the following actions to ensure that socioeconomic impacts are adequately mitigated:
 - a. As soon as possible, but no later than 120 days prior to commencement of construction, the Applicant shall notify the ISA of its proposed construction schedule;
 - b. At the time of notification, the Applicant shall consult with ISA to determine whether any socioeconomic conditions must be reevaluated and mitigation plans adjusted because of significant changes in socioeconomic conditions;
 - c. No later than 60 days prior to commencement of construction, the Applicant shall have completed, and provide to ISA for review, any required reevaluation of socioeconomic conditions and proposed adjustments to the mitigation plans;
 - d. As soon as practical, but prior to commencement of construction, the Applicant shall, pursuant to Section 12.b of the ISA Rules and Regulations, request an amendment of its permit by presenting to the ISC its proposed construction schedule and any reevaluation of socioeconomic conditions and adjustments of mitigation plans; and
 - e. A public hearing will be held if determined appropriate by ISC in accordance with Section 12.b provided, however, the ISC shall undertake all reasonable steps to schedule the hearing, if required, so as not to delay construction of the project.

APPENDIX 2
REQUIRED GENERAL FEDERAL MEASURES
RECLAMATION PROCEDURES, AND CHEVRON
STANDARD CONSTRUCTION AND OPERATION
PROCEDURES DESIGNED TO REDUCE
ENVIRONMENTAL IMPACTS

- A.2.1 Required General Federal Mitigation Measures
- A.2.2 Required General Federal Reclamation and Erosion Control Procedures
- A.2.3 Chevron Standard Construction and Operation Procedures Designed to Reduce Environmental Impacts
- A.2.4 Special Federal Mitigation Measures

A2.1 REQUIRED GENERAL FEDERAL MEASURES

As a condition for granting the various rights-of-way and permits, the authorizing agencies will require that certain terms and conditions be met. The general federal measures are presented in this appendix. As project plans are finalized and before authorizations are given, specific requirements will be added by the various authorizing agencies.

Chevron will be required to prepare a Construction and Operation (CO) plan or similar document, covering the construction of all project facilities on federal land. This plan will be submitted to the authorizing agencies for approval prior to commencement of work on the ground. The CO plan will contain site-specific stipulations for the following sections (because the various rights-of-way will involve many types of terrain, soils, vegetation, land uses, and climatic conditions, the sections within the CO plan will include sets of techniques and measures tailored to each condition encountered):

- Fire Protection
- Clearing - Visual Resources
- Erosion Control, Revegetation, and Restoration. Specific requirements for erosion control, revegetation, and restoration to be incorporated in the CO plan are included in the Required Reclamation Procedures section of this appendix.
- Transportation
- Communications
- Cultural Resources
- Threatened and Endangered Plant and Animal Species Studies and Mitigation, including a wildlife mitigation plan developed jointly with the State Wildlife Agency (Utah Division of Wildlife Resources and the Wyoming Game and Fish Department), Bureau of Land Management (BLM), U.S. Forest Service, and U.S. Fish and Wildlife Service.
- Blasting
- Pesticide and Herbicide Use
- Health and Safety
 - Solid Waste
 - Emergency response
 - Air Quality Transportation

Technical assistance and approval of written plans for federally managed lands will be obtained from the BLM and Forest Service prior to any construction.

Under authority of Section 504 of the Federal Land Policy and Management Act, Chevron will be required to provide funding to the appropriate federal agencies for the purpose of financing one or more specialists for administration of construction activities.

The following federal general and resource measures will be required for those portions of the project applicable to each agency.

REQUIRED MEASURES AND RECLAMATION PROCEDURES

A2.1.1 Bureau of Land Management

General Measures

1. There will be compliance with all state and federal regulations and laws.
2. All activities associated with the project will be conducted in a manner that will avoid or minimize degradation of air, land, and water quality. In the construction, operation, maintenance, and abandonment of the projects, activities will be performed in accordance with applicable air and water quality standards, and related plans of implementation, including but not limited to, the Clean Air Act, as amended (42 USC 1321) and the Clean Water Act (USCA 1251).
3. Permittees and other regular users of public lands affected by construction of the projects will be notified in advance of any construction activity that may affect their businesses or operations. This will include, but not be limited to, signing of temporary road closures, notification of proposed removal and/or cutting of fences, and disturbances to range improvements or other use-related structures.
4. Chevron (holder) agrees not to exclude any person from participating in employment or procurement activities connected with the grant on the grounds of race, creed, color, national origin, and sex, and to ensure against such exclusions. Chevron (holder) further agrees to develop and submit to the proper reviewing official, specific goals and timetables with respect to minority and female participation in employment and procurement activity connected with this grant. Chevron (holder) will take affirmative action to utilize business enterprises owned and controlled by minorities or women in its procurement practices connected with this grant. Affirmative action will be taken by Chevron (holder) to assure full consideration to all minority or women applicants regarding employment opportunities connected with this grant. Chevron (holder) also agrees to post its equal opportunity obligations in conspicuous places on its premises to ensure availability to contractors, subcontractors, employees, and other interested individuals, such as bidders, contractors, purchasers, and labor unions or representatives, or workers with whom it has collective bargaining agreements.

5. The right-of-way grant will be issued subject to applicable regulations in 43 CFR Part 2800 and all valid rights existing on the date of this grant.
6. This right-of-way grant may be renewed. If renewed, the grant for right-of-way will be subject to regulations existing at the time of renewal and such other terms and conditions deemed necessary to protect the public interest.
7. The holder shall indemnify the United States against any liability for damage to life or property arising from the use and occupancy of BLM administered lands under the right-of-way.
8. There is hereby reserved to the Secretary of the Interior or his lawful delegate, the right to grant additional rights-of-way or permits for compatible uses on, over, under, or adjacent to the land involved in the grant.
9. The right-of-way shall be limited to a total disturbed area, including existing roadways of no more than 50 feet wide, except where authorized for special areas by the authorizing agency (e.g., staging areas sidehill cuts, etc).
10. Holder shall conduct all snow removal and snow berm construction on areas outside of the right-of-way or on revegetated areas in a manner which will not disturb the surface of the ground. To prevent any surface disturbance, all equipment used for snow removal operations shall be equipped with shoes to keep the blade 6 inches above the ground. Holder shall take special precautions where the surface of the ground is uneven and at all drainage crossings to ensure that equipment blades do not touch the ground surface.
11. During the final survey of the pipeline, the centerline and outside boundaries of the pipeline will be staked and flagged. Stakes will be no more than 200 yards apart. Station numbers of the survey will be written on each stake or hub. Where the pipeline parallels an existing line, the existing line will be flagged where necessary to avoid disturbance of the existing line. The authorized officer reserves the right to make adjustments in right-of-way alignment as may be necessary to minimize environmental impacts.
12. The holder shall, at all times during construction, maintenance, and operation, maintain satisfactory spark arrestors on all steam and internal combustion engines and on all flues used in operations under this grant.
13. Holder shall furnish the authorized officer with engineering drawings of the existing ground profile and plan, and profile views of the facilities to be constructed under this right-of-way grant. These drawings must portray typical cross sections (i.e., cut, fill, bench sections, etc.) at representative points along or within the right-of-way.

14. Paved roads and railroads will be crossed by boring under the roadbed. Casing pipe will be installed when crossing under major roads and railroads.
15. After the ditch is prepared, the pipe will be positioned, welded, and laid in accordance with industry-approved methods. The pipe will be inspected visually and by x-ray cameras before it is buried.
16. Abandonment procedures will be submitted to the authorized officer at least 1 year prior to actual termination of abandonment.
17. Nonreflective external materials or finishes shall be used for microwave towers, antennas, and reflectors.
18. The holder shall install and use Federal Communication Commission approved radio equipment in such a way that it will not interfere with the operation of other users' equipment. If, however, there is a radio or electronic interference with other users' operation which is traceable to the grantee's equipment, the holder shall immediately make such modifications to its equipment as shall eliminate the cause of interference at no cost to BLM, or grantee will discontinue use of said equipment until cause of interference has been eliminated.
19. An "as built" survey map will be submitted to the authorized officer(s) within 60 days after construction is completed.
20. When all development and rehabilitation have been completed, and periodically throughout the life of the project, a joint compliance check of the right-of-way shall be made by the holder and the authorized officer or designated representative to determine compliance with the terms and conditions of the grant. Holder shall perform, at its own expense, any required modifications or additional reclamation work for compliance with the terms of the grant.

Resource Measures

1. Transportation
 - a. A transportation plan will be submitted as part of the CO plan. This plan will cover approval of temporary, reconstructed, and newly constructed roads and will include clearing work, signing, rehabilitation, and uses associated with transportation needs. Overland access could be specified in lieu of road construction or reconstruction.
 - b. Access roads necessary for operation and maintenance of the project will be clearly identified. Some of these access roads may be designated by the authorizing agency as open for public use, including but not limited to, off-road vehicular travel.
 - c. All roads constructed or improved shall be limited to a 16-to 18-foot wide driving surface excluding turnouts. (Turnouts, if necessary, are to be placed where designated on the map submitted with the right-of-way grant, or discussed and agreed upon during the presite inspection.) All roads shall be constructed as

crowned and ditched roads and adequately drained. Drainage facilities may include ditches, water bars, culverts, and/or any other measure deemed necessary by the BLM authorized officer. Minimum authorized culvert diameter will be 18 inches. Culvert(s) of the diameter capable of handling the anticipated runoff are to be installed.

Culvert(s) will be installed at the location(s) discussed at the presite inspection or as indicated on the map submitted with the right-of-way grant.

d. Helicopters will be used at the discretion of the authorized officer where determined through consultation with Chevron that in order to string pipe and deliver equipment in areas where access to the terrain or management constraints preclude standard construction procedures.

e. The rights-of-way will be used as access roads only when necessary and during the construction period and only during emergencies after completion. Any use will be only as approved by the authorized officer.

f. Chevron will control off-road vehicular use on the rights-of-way. Such specified control could include use of physical barriers, replanting trees, or other reasonable means of off-road vehicular control.

g. Gates or cattle guards on established roads on public land will not be locked or closed by Chevron (unless the gates or cattle guards were originally locked or closed).

2. Land Use

a. Disturbance of improvements such as fences, roads, and watering facilities during the construction and maintenance of the rights-of-way must be kept to an absolute minimum. Immediate restoration of any damage to improvements to at least their former state will be required. Functional use of these improvements must be maintained at all times. When necessary to pass through a fence line, the fence shall be braced on both sides of the passageway prior to cutting of the fence. A gate acceptable to the authorized officer shall be installed in the gate opening and kept closed when not in actual use. Where a permanent road is to be constructed or maintained, cattle guards shall be placed at all fence crossings.

b. If a natural barrier used for livestock control is broken during construction, Chevron will adequately fence the area to prevent drift of livestock. In pronghorn ranges, the fence may have to be constructed in a manner which allows for animal passage. Fence specifications will be determined on a case-by-case basis.

c. All fencing constructed by Chevron will meet BLM and Wyoming Game and Fish Department design requirements, except where total exclusion is required.

3. Water

a. All river, stream, and wash crossings required for access to project facilities will be at existing roads or bridges, except at locations designated by the authorized officer. Culverts or bridges will be installed at points where new permanent access roads cross live streams to allow fish unobstructed passage. Where temporary roads cross drainages or dirt fills, culverts will be installed during construction and removed upon completion of the project. Any construction activity in a perennial stream is prohibited unless specifically allowed by the authorized officer. All stream channels and washes will be returned to their natural state.

b. Construction plans for stream crossings by boring, driving, culverts, bridges, or trenching will be approved by the authorized officer.

c. Construction equipment will be refueled and maintained outside of stream channels in areas designated by the authorized officer.

d. Stream and river crossings will require more specialized equipment. Draglines or backhoes will be used to ditch streams or rivers. If necessary, after proper temporary use permitting, a staging area will be built to give the equipment a platform from which to operate. The staging area will also be used to prepare the pipe prior to placement in the ditch. Streams and rivers will be crossed when water levels are low in order to minimize damage to the streambed and adjacent areas. Special pipe coating and/or river weights will be applied prior to submerging and burying the pipe.

e. In order to minimize damage in the Red Creek Basin Watershed and areas with severe winter conditions, construction activity will be allowed only from May 15 to November 1. This limitation does not apply to maintenance and operation of this right-of-way. Any exception to this requirement must be obtained in writing from the authorized officer.

4. Waste

a. Garbage and other refuse will be stored in containers at all times and disposed of at least once a week in an authorized county-approved sanitary site or landfill. Used engine oil which is changed on federal lands will be stored in suitable containers and disposed of as refuse; no fuel, oil, or other hydrocarbon spills are permitted. If such a spill accidentally occurs, the authorized officer will be notified immediately and corrective measures undertaken as directed.

b. Within 30 days after conclusion of construction and operation, all construction materials and related litter and debris shall be disposed of in accordance with instructions from the authorized officer.

5. Vegetation

a. Vegetation cleared during construction or other activity will be disposed of in accordance with instructions from the authorized officer.

b. Commercial tree species which have been cut will be measured and remunerated.

c. Disturbed areas, which in the opinion of the authorizing agency are unsuitable for successful revegetation, shall be protected under the erosion control, revegetation, and reclamation provisions of the CO plan. This plan shall state the method of protection to be used and the provisions for prevention of site deterioration and introduction of noxious weeds. At a minimum, the CO plan will include the items described in the Required Reclamation Procedures section of this appendix for use on all rights-of-way on federally managed lands.

d. All trees will be cut so that stumps are no more than 6 inches high. The trees will be limbed and stacked adjacent to the right-of-way. During cleanup, all slash will be spread over the right-of-way.

e. Preclearing of mountain brush and tree-covered areas prior to dozer and maintenance blade work will be required. Preclearing will involve hand cutting brush and trees and removing them to designated areas.

f. The clearing of timber to reduce fire hazard will be limited to the right-of-way.

g. Fire control provisions will be included in the CO plan. Chevron shall do everything reasonably possible, both independently and upon request of the authorized officer, to prevent and suppress fires on or in the immediate vicinity of the right-of-way or permit area. This includes making available such construction and maintenance crews as may be reasonably obtained for the suppression of fires.

6. Soils

a. Existing soils and geological data shall be gathered by Chevron and used to achieve maximum revegetation and minimum soil erosion.

b. Areas subject to mudflows, landslides, mudslides, avalanches, rock falls, and other types of mass movement will be avoided where practical for locating linear facilities. Where avoidance

is not practical, the design, based upon detailed field investigations and analyses, will provide measures to prevent the occurrence of mass movements.

c. In areas where soil surface has been modified or natural vegetation has been removed, noxious weeds will be controlled.

d. Watering of major access roads or other approved dust abatement procedures will be done to prevent severe wind erosion and loss of soil materials during construction.

e. The holder will reclaim the surface of the pipeline right-of-way to conform with adjacent terrain by replacing fills in the original cuts, replacing soil material, watering bars, and re-vegetating the surface.

7. Visual

a. A plan to minimize visual impacts from structures will be required as a part of the CO plan. Chevron will design and locate the pipeline routes and ancillary structures to blend into the existing environment so as to meet the minimum degree of contrast acceptable for the Visual Resources Management class and Visual Quality Objectives in which the structures would be located. The authorized officer will evaluate and approve measures before construction begins.

b. The edges of vegetative clearings in selected areas of dense shrubs and trees will be thinned and/or irregularly corrugated to avoid straight line visual effects.

c. Holder shall paint all permanent structures (on site for a period longer than 90 days after construction) a flat, noncontrasting color that is harmonious with the adjacent landscape. Exceptions to this requirement would be small structures that are not readily visible from a distance of approximately 0.25 mile (such as a wire or small pipe structures which require safety coloration in accordance with Occupational Safety and Health Administration requirements).

d. All facilities constructed under this right-of-way shall have matte or nonreflective external finishes that harmonize with the adjacent natural setting.

8. Cultural

a. Prior to project construction, Chevron, in consultation with the authorized officer and the Wyoming and Utah State Historic Preservation Offices, will use available cultural resource data to develop a plan to locate cultural resources which would be directly affected by the proposed project through use of a BLM Class III field survey. The inventory plan will define the extent and intensity of the site-specific cultural resource surveys. Resources identified during the field surveys will be evaluated

in terms of eligibility for nomination to the National Register of Historic Places.

b. Chevron will provide an approved archaeologist to execute or monitor the survey for cultural resources during construction of all project facilities.

c. All significant cultural resources identified within the project area will be avoided wherever possible. For significant cultural resources that cannot be avoided, a Memorandum of Agreement with the Advisory Council of Historic Preservation and the Wyoming and Utah State Historic Preservation Offices will be developed that details specific mitigation measures in accordance with 36 CFR 800. All cultural resources discovered during construction that were not previously identified will be left undisturbed until they can be evaluated for significance.

d. The archaeologist will notify the BLM authorized officer a minimum of 3 working days before beginning site monitoring. Construction methods will be used which allow the archaeologist to identify buried cultural resources without endangering the personnel who are monitoring the surface disturbance. If any potentially significant buried resources are identified and the archaeologist determines that further operations will seriously affect the cultural resources, work will be suspended, and BLM will evaluate the resource and develop additional stipulations as needed. The cost for avoidance or salvage of any cultural resources identified by the archaeologist will be that of the operator. A report of all activities of the archaeologist will be submitted to BLM within 30 days following completion of the monitoring.

e. The authorized officer(s) may require the holder to relocate the proposed pipeline in order to avoid destruction of archaeological, paleontological, or historical values, or to delay construction until salvage operations are completed. All salvage shall remain the property of the United States and shall be turned over to the BLM.

9. Paleontology

Chevron will provide a qualified paleontologist who is approved by the authorized officer. The paleontologist will conduct an intensive survey of all areas to be disturbed according to the significance and mitigation needs specified by BLM. The paleontologist will be available, as needed, during surface disturbance. If, in the opinion of the paleontologist, paleontological values specified by BLM would be disturbed, construction will be halted until appropriate action can be taken.

10. Wildlife

a. Chevron will allocate sufficient funds and time in advance of construction of any element of the project and its related facilities in order to perform U.S. Fish and Wildlife Service

approved inventories on any Threatened and Endangered listed species determined by the U.S. Fish and Wildlife Service Biological Opinion. If it is determined that listed species or their habitats may be present and could be affected by the proposal, appropriate consultation with the U.S. Fish and Wildlife Service will be conducted by the federal authorizing agency. No activities will be authorized until consultation is complete as specified by Section 7(c) of the Endangered Species Act. The Biological Opinion issued by the Fish and Wildlife Service as a result of the consultation process will specify the specific mitigation measures to be carried out by Chevron.

b. Any active golden or bald eagle nest found within a 1-mile radius of project activities (especially along the Green River during spring nesting periods) would have to be protected from harassment during the critical nesting period (March 1 through June 30) in accordance with provisions established by the Bald Eagle Protection Act.

c. Chevron shall comply with existing county, state, and federal laws concerned with the protection and preservation of feral horses, feral burros, raptors, and game and non-game wildlife species.

d. In order to protect big game winter range and prevent harassment to wildlife during the critical winter period, construction activity will be allowed only from April 1 to December 15. This limitation does not apply to maintenance and operation of this right-of-way. Any exceptions to this requirement must be obtained in writing from the authorized officer.

e. In order to protect raptor nesting areas, construction activity will be allowed only from July 1 to March 1. This limitation does not apply to maintenance and operation along this right-of-way. Any exceptions to this requirement must be obtained in writing from the authorized officer.

f. No occupancy or other surface disturbance will be allowed within 2 miles from the center of a sage grouse strutting ground (lek) from March 1 through June 30 unless permitted by the authorized officer.

g. Pole top designs shall be raptor safe as per Suggested Practices for Raptor Protection on Powerlines for power transmission lines (Olendorff 1981).

h. No construction activity will be authorized at the Green River crossing in T. 2 N., R. 25 E., between September 15 and March 1 due to brown trout spawning and incubation.

A2.1.2 U.S. Forest Service

General Measures

1. The permittee shall do everything reasonably within its power and shall require its employees, contractors, and employees of contractors to do everything reasonably within their power, both independently and upon request of the Forest Service, to prevent and suppress fires on or near the lands to be occupied under the conditions of this permit.
2. All earth cut or fill slopes favorable to revegetation, or other areas on which ground cover is destroyed in the course of construction, will be revegetated to grasses or other suitable vegetation as required by the Forest Supervisor.
3. Seeding or planting will be done at a time of the year, in a manner, and with species which the District Ranger considers offer the best chance of success, and will be repeated annually until such areas are accepted in writing by the District Ranger as being satisfactorily revegetated and stabilized.
4. The permittee shall be responsible for the prevention and control of soil erosion and gulying on the area designated by this permit and lands adjacent thereto, resulting from construction or operation of the permitted use, and shall provide preventive measures as required by the District Ranger.
5. Natural phenomenons which occur on national forest land, such as avalanches, rising waters, high winds, falling limbs or trees, and other hazards, present risks to the permittee's property which the permittee assumes. The permittee has the responsibility of inspecting the site, right-of-way, and immediate adjoining area for dangerous trees, hanging limbs, and other evidence of hazardous conditions and, after securing permission from the Forest Service, of removing such hazards in order to protect the permittee's improvements.
6. The permittee shall indemnify the United States against any liability for damage to life or property arising from the occupancy or use of national forest lands under the conditions of this permit.
7. The permittee shall be held liable for all injury, loss, or damage, including fire suppression costs, directly or indirectly resulting from or caused by the permittee's use and occupancy of the area covered by the conditions of this permit, regardless of whether the permittee is negligent or otherwise at fault, provided that the maximum liability without fault shall not exceed \$1,000,000 for any one occurrence, and provided further that the permittee shall not be liable when such injury, loss, or damage results wholly, or in part, from a negligent act of the United States, or an act of a third party not involving the facilities of the permittee.

Liability for injury, loss, or damage, including fire suppression costs in excess of the specified maximum, shall be determined by the laws governing ordinary negligence.

8. The permittee shall perform all work with explosives in such a manner as not to endanger life or property. All storage places for explosives and flammable material shall be marked "DANGEROUS." The method of storing and handling explosives and flammable materials shall conform to recommended procedures contained in the "Blasters Handbook" published by E.I. du Pont de Nemours and Company, and in all federal, state, and local laws and regulations.

9. The permittee shall take reasonable precautions to protect, in place, all public land survey monuments, private property corners, and national forest boundary markers. In the event that any such land markers or monuments are destroyed in the exercise of the privileges authorized by this permit, depending upon the type of monument destroyed, the permittee shall see that they are reestablished or referenced in accordance with (1) the procedures outlined in the "Manual of Instructions for the Survey of the Public Land of the United States," (2) the specifications of the county surveyor, or (3) the specifications of the Forest Service.

Further, the permittee shall cause such official survey records as are affected to be amended as provided by law.

10. This permit is issued on the condition that the permittee has secured, or will secure, the consent of any person having valid claim to the land.

11. This permit shall not be exclusive. The Forest Service reserves the right to use or permit others to use any part of the permitted area for any purpose, provided such use does not interfere with the rights and privileges hereby authorized.

12. No signs or advertising devices shall be erected on the area designated by this permit or highways leading thereto, without prior approval by the Forest Service as to location, design, size, color, and message. Erected signs shall meet neat and presentable standards and be maintained or renewed as necessary.

13. Building and tower space at Grizzly Ridge will be in accordance with the existing Forest Service Electronic Site Plan.

A2.1.3 U.S. Army Corps of Engineers

The U.S. Army Corps of Engineers has prescribed management practices that should be followed, to the maximum extent practical, for discharges covered by the Nationwide Permit (items 1 through 8). Additionally, certain conditions (33 CFR 323.4-3(b) must be met under the Nationwide Permit authority (items 9 through 16). For further detail, please refer to the U.S. Army Corps of Engineers Permit Program, "A Guide for Applicants," November 1, 1977.

1. Discharges of dredged or fill material into United States water should be avoided or minimized through the use of other practical alternatives.
2. Discharges in spawning areas during spawning seasons should be avoided.
3. Discharges should not restrict or impede the movement of aquatic species indigenous to the waters, impede the passage of normal or expected high flows, or cause the relocation of the waters (unless the primary purpose of the fill is to impound water).
4. If the discharge creates an impoundment water, adverse impacts on the aquatic system caused by the accelerated passage of water and/or the restriction of its flow should be minimized.
5. Discharges in wetlands areas should be avoided.
6. Heavy equipment used in wetlands should be placed on mats.
7. Discharges into breeding and nesting areas for migratory waterfowl should be avoided.
8. All temporary fills should be removed in their entirety.
9. There cannot be any change in preconstruction bottom contours. (Excess material must be removed to an upland disposal area.)
10. The discharge cannot occur in the proximity of a public water supply intake structure.
11. The discharge cannot destroy a threatened or endangered species as identified under the Endangered Species Act nor endanger the critical habitat of such species.
12. The discharge cannot disrupt the movement of those aquatic species indigenous to the waterbody.
13. The discharge must consist of suitable material that is free of toxic pollutants in other than trace quantities.

14. The fill created by a discharge must be properly maintained to prevent erosion and other nonpoint sources of pollution.

15. The discharge must not occur in a component of the national wild and scenic river system or in a component of a state wild and scenic river system.

16. No access roads, fills, dikes, or other structures can be constructed below the ordinary high water of the streams specified under the Nationwide Permit. These structures would require separate section 404 permits.

A2.1.4 U.S. Environmental Protection Agency

1. Since construction of the slurry and water pipeline will involve river crossings, a Nationwide Section 404 Permit will be required. Generally river crossings are covered under the permit, although specific permits (individual 404 and Section 10 permits) will be required for important crossings. An individual permit will be required if filling of any wetlands is involved. The U.S. Environmental Protection Agency reviews the applications for 404 permits administered by the U.S. Army Corps of Engineers and provides recommendations for action on the permit including mitigation measures. For this project, the U.S. Environmental Protection Agency will likely recommend the following measures regarding the Green River crossings:

a. Dredged materials should be stored away from the flowing waters;

b. Revegetation of disturbed wetland or riverine areas should utilize native trees, shrubs, and grasses where applicable;

c. The permit should consider appropriate times for river disturbance that do not interrupt spawning cycles of various fish species; this may involve identifying the optimal "gaps" or "windows" for construction between different spawning seasons.

Additional mitigation measures will be considered for the following areas after more details are received:

d. Provisions for backfillings;

e. Lengths of riprapping involved; perhaps some limitation to minimize use of riprap may be warranted.

2. The U.S. Environmental Protection Agency currently has jurisdiction regarding permits for disposal of hazardous wastes. The project described here does not directly fall under any of the categorical industrial processes that would generate hazardous wastes identified in 40 CFR Part 261.32. Chevron should determine through Extraction Procedures (E.P.) Toxicity testing under Appendix II of the 40 CFR Part 261 regulations or other identified procedures whether any of the plant by-products, such as sludges or ash, constitute a hazardous waste.

A2.2 REQUIRED RECLAMATION AND EROSION CONTROL PROCEDURES

The following procedures will be required for use on federal land (BLM and Forest Service). Chevron has stated it would follow or has agreed to follow these procedures on all land (Chevron 1982a,b,c). The procedures outlined in this appendix will be incorporated as stipulations in any federal right-of-way grant and/or special use permit that may be issued. These procedures will be applicable during all phases of the project (construction, operation, and abandonment).

1. When operating on Utah State land, Chevron will prepare and follow appropriate plans, including applicable measures and procedures, to accomplish and ensure successful reclamation of state land affected by project action, as required by the Utah State Department of Natural Resources, Division of Oil, Gas, and Mining (State of Utah 1953).
2. When operating on Wyoming State land, Chevron will prepare and follow appropriate erosion control and reclamation plans including applicable measures and procedures to accomplish and ensure successful reclamation of state land affected by project action as required by the Wyoming State Land Board.
3. Chevron will comply with the erosion control and reclamation programs it has developed and will follow through on its commitment to "comply with appropriate regulations and required plans and stipulations to protect and restore the land disturbed by project construction and operation to a stable, productive, and aesthetically acceptable condition."
4. Chevron will develop a detailed, site-specific reclamation plan as part of its Operating Plan. Because the proposed rights-of-way are composed of many types of terrain, soils, vegetation, land uses, and climatic conditions, the detailed plan will include sets of techniques and measures tailored to each condition encountered. Local expertise and locally effective reclamation methods will be followed when the specific procedures for the detailed reclamation plan are developed. The erosion control, revegetation, and restoration guidelines and Operating Plan will be implemented under the direction of the authorized officer.
5. Detailed information regarding applicable techniques and technical assistance to private landowners concerning erosion control measures and reclamation procedures will be obtained where required by the private landowner from the Soil Conservation Service through local Soil Conservation Districts. Technical assistance and approval of written plans for federal lands will be obtained from the BLM and the Forest Service prior to any construction.

6. During construction of Chevron's project, an on-site reclamation specialist will be employed by Chevron to provide: (a) liaison with private landowners, federal agency officials, and local governments; (b) expertise to direct applicable restoration procedures when special conditions are encountered, without causing construction delays; and (c) favorable public relations.

7. General erosion control and restoration measures have been developed for the following areas and will be included as part of the Operating Plan:

- Right-of-way and Site Clearing
- Trenching and Preservation of Topsoil
- Backfilling and Grading
- Land Preparation and Cultivation
- Revegetation
- Maintenance and Monitoring
- Use of Biochemicals

A2.2.1 Right-of-way and Site Clearing

Emphasis will be placed on protecting existing vegetation and minimizing disturbance of the existing environment.

- Land grading will be done only on the area required for construction.
- Sidehill cuts will be kept to a minimum to ensure resource protection and a safe and stable plane for efficient equipment use. The authorizing agency will provide assistance and will approve sidehill cuts prior to construction.
- Existing ground cover such as grasses, leaves, roots, brush, and tree trimmings will be cleared and piled only to the extent necessary. Slash will be piled and later shredded and chipped for use in restoration operations or disposed of at the discretion of the authorized officer.
- Trees and shrubs that are not cleared from the right-of-way will be protected from damage during construction.
- Where the right-of-way crosses streams and other water bodies, the banks will be stabilized to prevent erosion. Construction techniques will be designed to minimize damage to shorelines, recreational areas, and fish and wildlife habitat.

- A buffer strip of terrestrial vegetation above the high water line will be left between work staging areas adjacent to the stream and the stream itself.
- Care will be taken to avoid slurry spills and other types of pollution in all areas including streams and other water bodies and in their immediate drainage areas. Spills will be cleaned up as required by the authorized officer or landowner.
- Design and construction of all temporary roads will be based on an approved transportation plan and will ensure proper drainage, minimize soil erosion, and preserve topsoil. After abandonment, these roads will be closed and the areas restored without unnecessary delay or maintained at the discretion of the landowners. Restoration, including redistribution of topsoil, will be to the satisfaction of the landowner and/or regulatory officials.
- During wet and muddy weather conditions, as determined by the on-site reclamation specialist, the authorizing agency will issue stop and start orders to prevent rutting or excessive tracking of soil and deterioration of vegetation in the right-of-way area.
- During construction activities near streams or lakes, sedimentation (detention) basins and/or straw bale filters will be constructed to prevent suspended sediments from reaching downstream water-courses or lakes, as required by the authorized officer.
- Actual construction activities will immediately follow clearing operations, especially in areas where soils are highly susceptible to wind or water erosion and other special areas.

A2.2.2 Trenching and Preservation of Topsoil

To facilitate complete project site reclamation, topsoil will be removed from disturbed land within the project area as necessary. Topsoil stockpiles within the plant complex will be mulched and seeded to reduce wind and water erosion.

Trenching methods and techniques would ensure that:

- Topsoil will be removed from the trench area by double-ditching (i.e., windrowed separately, protected, and replaced last during backfilling). This procedure will be followed as specified by the authorized officer.
- Remaining unearthed materials will be removed and stored in a manner that facilitates backfilling procedures, uses a minimum amount of right-of-way area, and protects the excavated material from vehicular and equipment traffic.

- Cofferdams or other diversionary techniques will be used where necessary to permit flow in one part of a stream while pipe-laying construction occurs in another part.
- A specific trenching and excavated material stockpiling procedure will be used on steep-sloping and rough, broken terrain to ensure minimum disturbance as outlined in the Operating Plan. This procedure will be developed by both the authorized officer and Chevron.

A2.2.3 Backfilling and Grading

The following backfilling and grading techniques will be used.

- Backfill will be replaced in a sequence and density similar to the preconstruction soil condition.
- Backfilling operations will be conducted in a manner that would minimize further disturbance of vegetation.
- The contour of the ground will be restored to permit normal surface drainage.
- In steeply sloping and steep terrain, erosion control structures such as water bars, diversion channels, and terraces will be constructed to divert water away from the pipeline trench and reduce soil erosion along the right-of-way and other adjoining areas disturbed during construction.
- All structures such as terraces, levees, underground drainage systems, irrigation pipelines, and canals will be restored to preconstruction conditions so that they function as originally intended.
- The surface will be graded to conform to the existing surface of the adjoining areas except for a slight crown over the trench to compensate for natural subsidence. In cropland areas, especially border-and furrow-irrigated cropland, the soils will be compacted and the crown will be smoothed to match the bordering area and allow for surface irrigation.
- Topsoil will be uniformly replaced over the trench fill and other disturbed areas to restore productivity to preconstruction conditions.
- Materials unsuitable for backfilling or excess backfill material will be disposed of as arranged by the authorized officer(s).

- Temporary work space or staging areas used at stream and highway crossings and other special sites will be restored to approximate preconstruction conditions and to the satisfaction of the authorized officer(s).
- The rights-of-way used at stream crossings will be restored as nearly as possible to a preconstruction state soon after completion of construction. The upland areas and banks will be revegetated to preconstruction conditions; where this is not possible, they will be mulched with rock. The size of the rock mulch will be larger in diameter than materials excavated from the trench. The streambed will be returned to its original contours with sediments similar to those that were excavated and as approved by the authorized officer. All drainages crossed by the pipeline will be kept free of vegetative debris and channels will be reopened following construction operations.
- Areas in steep terrain or wet areas where the right-of-way must be graded at two elevations (two-toning) or diversion dams must be built to facilitate construction, will be contoured upon completion of construction to resemble the original grade as nearly as possible, as agreed to by the authorizing officer in consultation with Chevron.

A2.2.4 Land Preparation for Seeding and Cultivation

Construction, backfilling, and grading activities commonly cause compaction and alter soil conditions that affect soil productivity and/or seeding success in the right-of-way area. The following practices and techniques will be used to improve these soil conditions, protect soil from erosion, and provide a favorable seedbed:

- In cropland areas, as required by the authorizing agency or landowner, subsoiling or chiseling will be used to ensure that soil compaction is reduced and preconstruction soil permeability is restored.
- Chiseling will be used in rangeland areas to reduce compaction and improve soil permeability unless there are objections from the landowner or authorizing agency. Pitting and contour furrowing as directed by the authorizing agency or landowner will be done on disturbed areas with steeper slopes to increase infiltration and to reduce runoff and erosion.
- Suitable mulches and other soil stabilizing practices will be used on all regraded and topsoiled areas to protect unvegetated soil from wind and water erosion and to improve water absorption.

- Special mulching practices or matting will be necessary to protect seeding, seedlings after germination, and plantings in critical areas where wind and water are serious erosion hazards.
- Commercial fertilizers will be applied to soil areas with low inherent fertility to maintain crop yields and establish grass seedings. Application rates will be commensurate with annual precipitation and available irrigation water.
- Seedbeds for areas seeded to grass will be prepared so that they will provide a firm and friable condition suitable for the establishment of grass stands.
- Rock mulches will be used in steep-sloping rock outcrop areas and low precipitation areas to reduce erosion and promote vegetation growth.
- Cultivation and land preparation operations on steeply sloping areas will be done on the contour to minimize erosion.
- Soil areas with rock fragments such as very coarse gravel, cobble, or stone scattered on the surface will be restored to the original preconstruction surface condition to blend with the adjoining area, to avoid a smooth surface right-of-way area, and to control accelerated erosion.

A2.2.5 Revegetation (Reseeding and Planting)

All disturbed areas shall be reshaped and revegetated as nearly as possible to their original condition or to a condition agreed upon by both Chevron and the authorized officer. This reclamation shall be accomplished as soon as possible after the disturbance occurs. Revegetation efforts will be continued until a satisfactory vegetative cover is established. The following practices and techniques will be used in areas where reseeding is suitable, as determined by the authorizing agency:

- A firm seedbed will be prepared prior to seeding. This will include a mulch of plant residues or other suitable materials. A cover crop may be needed in larger disturbed areas.
- Seed will be planted by drilling, broadcasting, or hydro-seeding. Wherever possible, planting will be done with a drill. Drill seeding with a grass drill equipped with depth bands will be used where topography and soil conditions allow operation of equipment to meet the seeding requirements of the species being planted. Broadcast seeding will be used in inaccessible or small areas. Seed will be covered by raking or harrowing. Hydroseeding will be done in critical areas as determined by the reclamation specialist or authorized officer.

- Only species adaptable to local soil and climatic conditions will be used; generally these would be native species. However, introduced species may be considered for specific conditions when approved by the landowner and regulatory authority. Seeding rates in critical area plantings and generally throughout the right-of-way will be increased 100 percent over regular seeding rates in order to compensate for seed mortality from adverse growing conditions.
- Seed testing will be conducted to meet federal, state, and agency seed requirements.
- Seeding will be done when seasonal or weather conditions are most favorable, and as determined by the landowner or authorized officer.
- Grazing or mowing will be delayed at least one season after seeding, especially in highly erodible areas, in order to provide time for vegetation to become established unless there are objections by the landowner or lessee. Protective fencing may be necessary in special areas as agreed upon and will be constructed, maintained, and removed according to authorizing agency or land owner specifications.
- In areas of low annual precipitation (generally less than 8 to 10 inches) where reseeding is not suitable or as successful, erosion control structures and measures will be applied on sloping areas to reduce accelerated erosion and to allow reestablishment of preconstruction surface soil conditions and natural revegetation.
- Trees and shrubs will be reestablished in areas as specified in the revegetation plan. Temporary and/or permanent structures will be installed by Chevron at specific locations along the right-of-way and other disturbed sites to prevent off-road vehicle access.

Biochemicals

The use of biochemicals such as herbicides, fungicides, and fertilizers will comply with state and federal laws, regulations, and policies regarding the use of poisonous, hazardous, or persistent substances. State and federal wildlife agencies will be contacted if application of any of these substances will be on or near sensitive wildlife areas. Application of these substances will be by ground methods. Prior to the use of such substances on or near the permit or grant area, Chevron will obtain approval of a written plan for such use from the authorized officer, landowner, and/or appropriate wildlife agency. The plan will outline the kind of chemical, method of application, purpose of application, and other information as required, and will be considered as the authorized procedure for all applications until revoked by the authorized officer, landowner, and/or appropriate wildlife agency. This plan will become part of the Operating and Construction Plan.

A2.2.6 Maintenance and Monitoring

Joint inspection of the right-of-way by Chevron and the authorizing agency will be conducted immediately following reclamation and periodically throughout the life of the project in order to monitor the success and maintenance of erosion control measures and revegetation programs on native grazing land. The monitoring program will identify problem areas and coorrective measures to ensure vegetation cover and erosion control. Certification of successful revegetation and erosion control will be determined by the authorized officer.

A2.3 CHEVRON STANDARD CONSTRUCTION AND OPERATION PROCEDURES DESIGNED TO REDUCE ENVIRONMENTAL IMPACTS

Chevron has stated that the following procedures will be followed in the construction of the proposed Chevron Phosphate Project (Chevron 1982a,b,c).

A2.3.1 Construction Timing

1. Right-of-way construction will be scheduled to avoid critical wildlife habitats during primary use periods as identified in BLM Management Framework Plans and state wildlife agency recommendations, unless changes are agreed upon by the authorized officer.
2. Pipeline construction activities on irrigated cropland will be timed, as nearly as possible, in order to avoid disruption of irrigation delivery systems during the major irrigation season and to reduce effects on crop production in construction areas as well as adjoining irrigated cropland areas served by the systems.
3. Pipeline construction activities in narrow floodplain areas subject to high erosion hazards will be timed in order to avoid high water flows as much as possible, which will reduce the effects of construction on erosion and sedimentation.

A2.3.2 Construction Procedures

1. All solid construction wastes from the plant site will be disposed of in the Sweetwater County sanitary landfill. Solid wastes from the rights-of-way will be disposed of in approved land fill sites. Sanitary wastes produced before completion of the wastewater treatment system will be handled by a contractor who will provide portable toilets.
2. Water trucks will moisten the work surfaces to suppress dust during construction of the plant complex.

3. Chevron will adhere to Occupational Safety and Health Administration rules and regulations during the construction and operation phases.
4. All culverts, bridges, and ditches will be designed to pass the appropriate peak runoff event. This will vary from a 10- to a 100-year event as needed.
5. The railroad spur will not be fenced (unless required by private landowners).
6. Clean water for hydrostatic testing will be used at the plant site and in all of the proposed pipelines. The water will not be discharged but will be stored at the plant site.
7. Where fences are encountered along the rights-of-way, adequate bracing will be installed at each edge of the right-of-way before cutting the wires and installing temporary gates. At the completion of construction, the opening will be closed using fencing of a quality equal to or greater than that of the original fencing.
8. Where blasting is necessary, Chevron will adhere to the following safety precautions in all instances.
 - In areas of human use, shots will be blanketed (matted).
 - Landowners or tenants in close proximity to the shot will be notified in advance so that livestock and other property can be adequately protected.
 - Before detonation, a clearance will be made to ensure that construction personnel and local residents are removed from the blast area.
9. When required, materials for approaches and fill will be obtained from: (a) the right-of-way; (b) commercial sources (which would require transportation to the location); or (c) adjacent lands where permitted by the federal surface management agency or the landowner.
10. In remote areas where there are no existing access roads, the pipeline right-of-way will be the primary path of surface travel for pipeline construction. Generally, roadbeds supporting paved roadways will be crossed by boring beneath the bed and inserting casing pipe rather than by ditching across the surface.
11. Stream gradients will be maintained by removing all spoil from the bed upon completion of construction. Banks will be restored to resemble their original grade, and sand-cement sacks, breakers, or riprap will be placed over the pipeline where necessary.
12. The plant structures will be painted in natural tones, except where required for aircraft warning.

A2.3.3 Operation and Maintenance

1. Permanent access along the phosphate slurry pipeline right-of-way will not be maintained. Where existing roads or trails cannot be used for emergency access, temporary permits will be obtained.
2. Volatile fuels and reagents will be stored in closed tanks to minimize the escape of vapors into the atmosphere.
3. Many unit operations will be carried out within closed vessels or ventilated process equipment. The gasses from the vessels and equipment will be passed through scrubbers to remove mists, gaseous pollutants, and dust.
4. Storage tanks will be diked to contain spills and return effluents to the process circuits.
5. Instrumentation will be installed in all plant circuits to monitor and control the process. This instrumentation will significantly reduce the probability of an accidental release of effluents into the environment.
6. Water requirements for the project will be reduced by recirculating process water and using water from the phosphate slurry pipeline for process circuits.
7. Surface runoff from the plant site will be routed to the gypsum impoundment and used as process makeup water. This will prevent possible contamination of surface waters from this source.
8. If herbicides are required for suppression of weeds around project components, they will be applied in accordance with manufacturer's recommendations and in accordance with federal and state regulations.
9. The intersection of the plant access road with Wyoming State Highway 430 will have a left turn/storage lane, an acceleration/deceleration lane, and through-traffic lanes. If traffic should become a problem, shift staggering and busing will be considered as partial mitigation.
10. Railroad accidents with motor vehicles should not occur since there will be no grade crossings between the plant site and the main line. Should a rail accident create a spill of feed stock or products, the carrier will be responsible for calling the Chemical Transportation Emergency Center (Chem-trec) and for initiating cleanup procedures. Chemtrec will then notify Chevron who will have a trained staff on-call, 24 hours a day.

A2.3.4 Abandonment

1. Foundations will be broken and buried. Topsoil will be spread over disturbed areas. Mulch, at the rate of 2 tons per acre, will be spread over the topsoil and anchored with a crimping disc prior to seeding.
2. Seeding will occur after October 15 to utilize all available winter and spring moisture. Seeding will normally be done by drilling, but steep slopes and small areas may be seeded by manual broadcasting at twice the seed rates.

If broadcast, the seeds will be covered by dragging, chaining, raking, or by other means.

3. Impoundments and ponds will be allowed to evaporate before they are contoured to blend as well as possible with the surrounding topography. Reclamation of the 400-acre gypsum impoundment will be in accordance with Industrial Siting Administration Permit Condition number 20(A) (See Appendix I).

A2.4 Special Federal Mitigation Measures

The following mitigation measures were identified during the process of impact analysis to further alleviate or minimize potential environmental effects from the proposed developments. The federal agencies are committed to these measures and the measures will become stipulations attached to any right-of-way grants that may be issued. These measures apply to the proposed action and alternatives as appropriate, and are in addition to the standard measures.

Chevron will be required:

- to temporarily deter the sediment that could result from construction on the Red Creek Basin Escarpment and to allow for stabilization, two check dams will be built on the major drainages coming from the escarpment. They will have a capacity sufficient to handle runoff. Design specifications will be determined during CO plan preparation.
- to reduce the possibility of sloughing and resulting sediment from the wet areas on the Red Creek Basin Escarpment, horizontal drains or other appropriate technique will be employed. They will outlet on the surface onto a riprap apron. Design specifications will be determined during CO plan preparation.
- to surface (gravel) all permanent roads that will be used on continuous basis during operation of the project. This will minimize rutting and erosion during wet periods.
- to develop a mitigation strategy that should mitigate the socioeconomic impacts that have been identified.

- to provide maximum protection to any river or stream that would be crossed by the slurry pipeline, pipeline valves should be installed on both sides of the stream, or the best possible pipeline rupture prevention technology should be used.
- to develop mitigation measures in coordination with the Wyoming Game and Fish Department and the U.S. Fish and Wildlife Service to prevent bird losses in the gypsum pond as problems develop. Prevention of losses of migratory birds is mandated by the Migratory Bird Treaty Act.
- to oil or water during construction, all non-hard surfaced major access roads including those used during the primary recreation seasons from May through September to keep visibility impacts from dust to a minimum.
- to minimize road cuts and fills when constructing new roads or upgrading existing areas to minimize the contrast in landform modification and contrast for the visual resource.
- to double cut ends of culverts to match the road cut slopes, or to use preformed end sections when installing culverts for roads in visually high or medium sensitive areas in order to reduce the visual contrast caused by the addition of a structure to the landscape.
- to ensure that the people in Brown's Park and Dutch John and all other people of interest within Daggett County are notified of any road closures in Jesse Ewing Canyon.
- to ensure periodic access through Jesse Ewing Canyon during the work day, especially for emergencies, and after the work shift each night.
- to use self-weathering steel for guard rails if the authorized officer deems guard rails are necessary, in areas of high or medium visual sensitivity in order to reduce the visual contrast caused by the addition of the structures to the landscape.
- to use long spans at right angles, when feasible, where power distribution lines unavoidably cross roads in high or medium visually sensitive areas in order to minimize the visual contrasts to form, line, and color from the added structures and conductors.
- to locate the slurry pipeline as close as possible to existing pipelines as determined by the authorized officer in order to reduce the width required for the corridor.

-to blend pipeline clearings with natural vegetative clearings and patterns so that they are natural in appearance, or to place pipelines along existing side roads to minimize visual contrast with the natural landscape.

-to use proper trenching and backfill techniques to replace soils (in areas where subsoil colors are different from surface soil colors or where visual sensitivity is high or medium) so color contrasts do not result in lessening the visual quality of an area.

-Pipeline construction in the Rye Grass Draw area should not occur during the May 15 through June 15 period due to significant elk calving in this area (in the vicinity of MP A28), unless approved by the authorizing officer.

Form 1279-3
(June 1984)

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Record of decision for
Chevron phosphate pi

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